

Shenzhen Chenxinwei Technology Co., LTD.

1123 Tongfang Creative Comune, intersection of Zhonexin Road and Haoxiang Road., Xinqiao Subdistrict, Baoan District, shenzhen

Specification for approval

Customer name : Era international

Customer machine type: External WiFi antenna

Customer data number: _____

Specifications Description: External Antenna/2.4G~5.8G-WiFi/3dBi/50ohm/
Φ10.00*L84.00mm/RP-SMAJ/RP-SMAK connector RF1.13mm black coaxial cable
L=87mm/IPEX1

Signature and Seal					
CXW Confirmation			Customer Confirmation		
sample reparation	Check	approve	Verification	Check	Approve
CXW signature and Seal			Customer's signature and Seal		
date	2025-12-26		date		

2.Document formulation/revision/removal of application form

[illegible]

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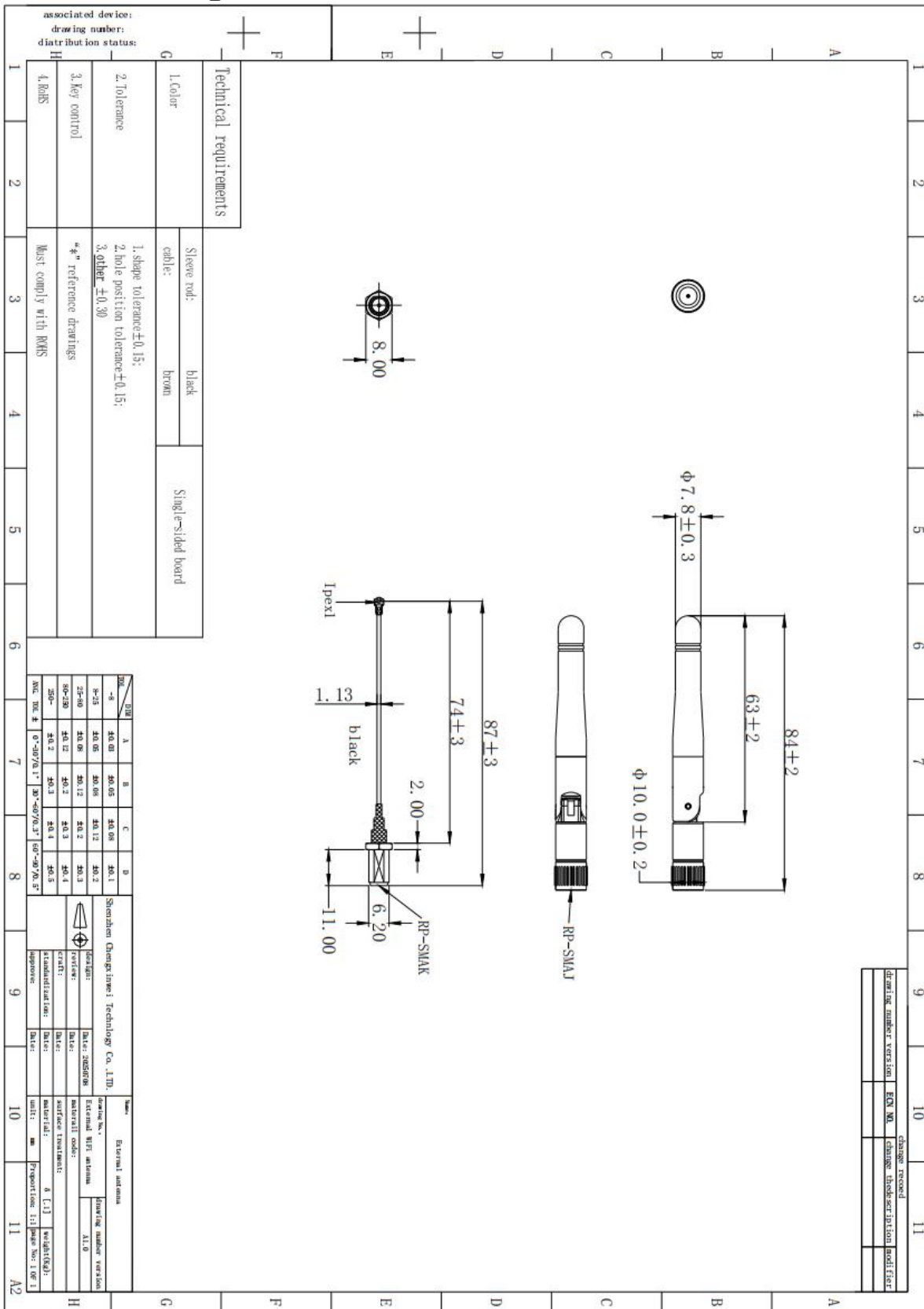
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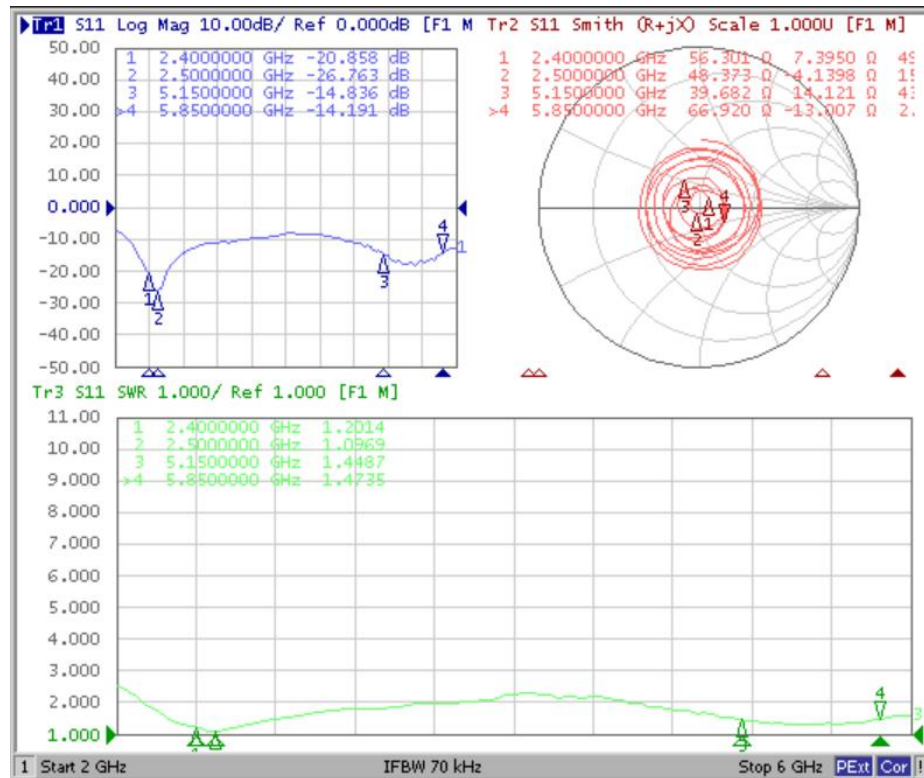
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5.Passive performance test parameters

S11



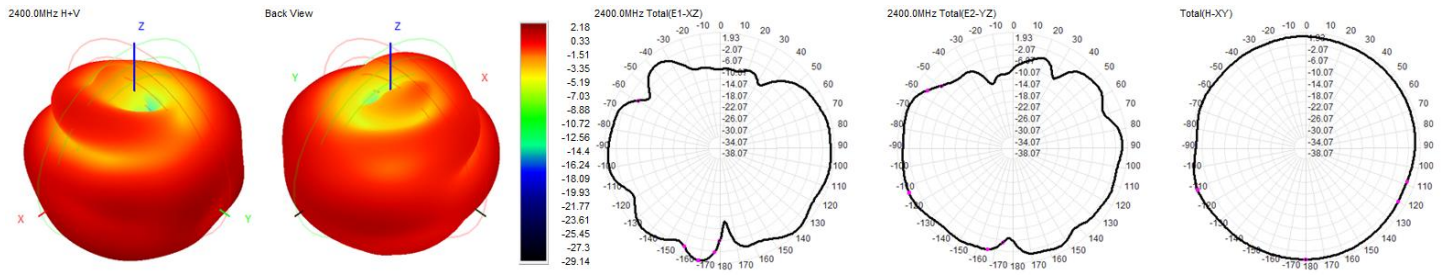
Fre(GHz)	2.4	2.5	5.15	5.85
ReeturnLoss	-20.85	-26.76	-14.83	-14.19
VSWR	1.20	1.09	1.44	1.47

Efficiency、Gain、Direction diagram

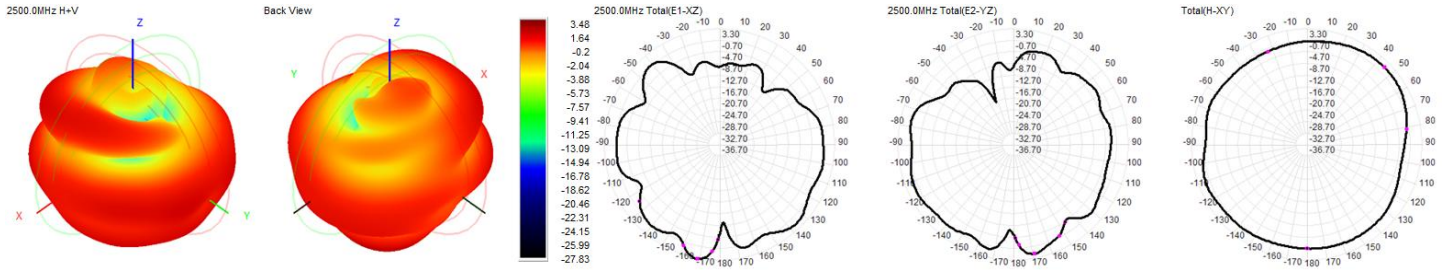


Frequency ID	1	2	3	4	5	6	8	9	10	11	12	13	14	15
Frequency (MHz)	2400.0	2420.0	2440.0	2460.0	2480.0	2500.0	5150.0	5250.0	5350.0	5450.0	5550.0	5650.0	5750.0	5850.0
Efficiency (dBi)	-1.15	-1.66	-2.18	-2.24	-2.14	-2.00	-1.46	-2.12	-1.60	-1.47	-1.43	-1.41	-1.74	-1.92
Gain (dBi)	2.18	2.27	2.64	2.80	3.03	3.48	2.86	2.09	2.61	3.26	3.15	3.15	2.86	3.18
Efficiency (%)	76.69	68.23	60.60	59.66	61.13	63.11	71.49	61.42	69.17	71.25	71.98	72.22	67.05	64.20
Directivity (dB)	3.33	3.93	4.82	5.04	5.17	5.48	4.32	4.21	4.21	4.74	4.57	4.56	4.59	5.10
Peak Gain Position (Theta)	96.00	168.00	168.00	168.00	168.00	168.00	128.00	128.00	111.00	125.00	112.00	111.00	124.00	109.00
Peak Gain Position (Phi)	113.00	332.00	333.00	336.00	336.00	332.00	303.00	304.00	243.00	307.00	250.00	247.00	316.00	230.00
Efficiency ThetaPol (%)	71.07	62.28	54.58	53.25	54.62	56.23	65.29	57.57	64.16	67.86	68.46	69.07	63.34	61.26
Efficiency PhiPol (%)	5.62	5.94	6.01	6.41	6.52	6.88	6.20	3.85	5.01	3.38	3.51	3.15	3.72	2.94
Upper Hem. Efficiency (%)	31.33	28.89	24.58	22.65	22.70	23.79	33.31	30.04	32.93	34.70	34.22	32.99	29.84	28.26
Lower Hem. Efficiency (%)	45.36	39.34	36.02	37.01	38.43	39.32	38.18	31.38	36.23	36.55	37.76	39.23	37.22	35.95

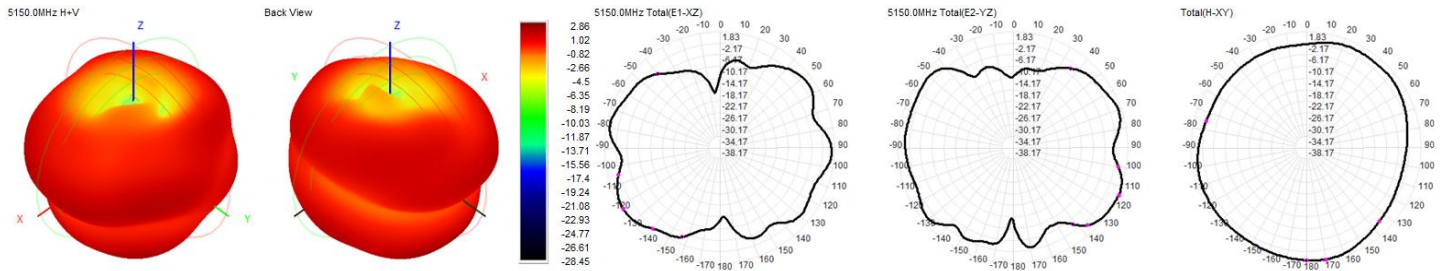
Radiation Patterns at 2.4GHz



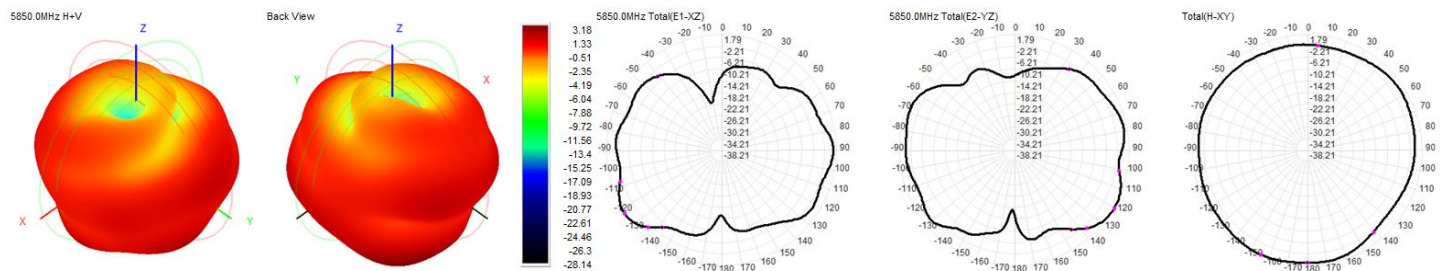
Radiation Patterns at 2.5GHz



Radiation Patterns at 5.15GHz



Radiation Patterns at 5.85GHz



6.Electrical Performance Test Report

Electrical parameters		
frequency range		2.4-2.5GHz /5.15-5.85GHz
input impedance		50 Ω
standing wave ratio		<2.0
gain	2.4GHz	3 dBi
	5.8GHz	3 dBi
Polarization mode		cross polarization
radiation direction		omnidirectional
Type of connector		SMA-IPEX1
Mechanical parameters		
wire length		87mm
maintenance energy		/
coax		Black 1.13mm
Salt Spray Test		
Enviromental parameter		
working temperature		-40~85℃

7. Reliability Test Report

7.1. Steady Temperature Damp Test

Trial/trial project	steady temperature damp test	Inspection order number
产品名称/规格	2.4G/5.8G- φ 10.00*L84.00 External WiFi antenna/SMA to IPEX1, L=87mm	Number of tests: 5PCS
Date of submission: 2025-07-06		Completion date:2025-07-07
Test/inspection equipment: 1. Programmable constant temperature and humidity test chamber 2. 8753ES network analyzer		
Test/inspection conditions: 1. Test 12H at constant temperature-40℃ 2. +65° 65 ~70%RH test 12H, a total of 24 hours;		
Test Results		
requirement : 1 、 The metal surface should not be cracked, wrinkled, separated, etc.; the non-metal parts should not be discolored, cracked, deformed, delamination and other bad; 2 、 The electrical test meets the standard requirements; the voltage standing wave ratio test is qualified		
Test/inspection determination: ☒ qualified ☐ unqualified ☐ No determination		
test : examine and verify :		

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7.2. High and Low Temperature Hot and Cold Shock

Trial/trial project	High and low temperature hot and cold shock	Inspection order number
产品名称/规格	2.4G/5.8G- φ 10.00*L84.00 External WiFi antenna/SMA to IPEX1,L=87mm	Number of tests: 5PCS
Date of submission: 2025-07-06		Completion date:2025-07-07
Test/inspection equipment: 1. High and low temperature alternating hot and humid 2. 8753ES network analyzer		
Test/inspection conditions: -40℃ (2H) --interval 80℃ (2H), 6 cycles, a total of 24 hours;		
Test Results		
requirement : 3 、 The metal surface coating should be free from peeling, cracking, wrinkling, separation, etc.; the non- metal parts should not have discoloration, cracking, deformation, delamination and other bad; 4 、 The electrical test meets the standard; the voltage standing wave ratio test is qualified.		
Test/inspection determination: ☒ qualified ☐ unqualified ☐ No		
test : examine and verify :		

8.package specification

Product material number:									
Product Specifications: External Antenna/2.4G~5.8G-WiFi/3dBi/50ohm/ φ10.00*L84.00mm/RP-SMAJ/RP-SMAK connector RF1.13mm black coaxial cable L=87mm/IPEX1									
<u>connector.</u>									
I. Labeling requirements									
The inner label is 45 long and 70 wide						The outer label is 45 long and 70 wide			
demander						demander			
supplier		Shenzhen Chenxinwei Technology Co., LTD.				supplier		Shenzhen Chenxinwei Technology Co., LTD.	
Customer order number						Customer order			
Customer part number						Customer part number			
material code						material code			
Name and specification		examination clerk				Name and specification		examination clerk	
Quantity/Unit		date of manufacture				Quantity/Unit		date of manufacture	
remarks						remarks			
II. Packing requirements									
1. Pack-aged product 50PCS 5000PCS									
2. external packing									